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STATE-INITIATED FNP DEMONSTRATION PROJECT  
ASSISTANCE AND EVALUATION

ASSESSMENT OF THE MANAGEMENT OF THE  
STATE ERROR REDUCTION DEMONSTRATION PROJECTS

VOLUME I: PROJECT SUMMARY

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## PROJECT SUMMARY

As the responsible agency for administering the U.S. Department of Agriculture's Food Stamp Program, a major priority for the Food and Nutrition Service (FNS) is to reduce losses to the program due to fraud and error. It has become increasingly difficult to develop strategies that are effective in reducing errors. As the error rate decreases nationally, there remains a very costly set of errors that represent a relatively small percentage of total cases. Further, these errors are distributed heterogeneously, and they are elusive to methods that have been effective in the past. FNS has sponsored several initiatives to reduce errors. One of the most significant resources for error reduction strategies is state and local food stamp agencies. By virtue of having responsibility for service delivery, state and local agencies have firsthand knowledge of the systems that allow errors to occur. This knowledge cannot be duplicated within FNS or by external sources.

In July of 1983, USDA solicited state and local agencies to submit proposals for demonstrations and evaluations designed to reduce errors and abuse in the Food Stamp Program through fraud prevention and/or detection strategies and improved management practices. Authorization for this solicitation is contained in Section 17 of the Food Stamp Act, as amended. FNS established cooperative agreements with three states--Maryland, North Carolina, and Vermont--as a result of this solicitation. This summary presents a description of the three projects and their outcomes.

## MARYLAND: A MEDIA INTERVENTION

Maryland looked to its quality control data to reveal that client error was to be the broad target of the demonstration, and that income and household size were the major error sources. Maryland postulated that applicants do not intentionally misreport to cheat the system, but that they misreport because of fear that more complete and accurate reporting would reduce grants or render them ineligible.

Given this framework, the most obvious correction action strategy is that of allaying client fears by informing clients that accurate reporting will not have negative consequences. The intervention to be demonstrated was conceptualized in a research office and developed in advertising terms, as media messages intended to foster accurate reporting. The media messages were designed to reinforce existing reporting requirements, and to make it clear that complete reporting does not necessarily have negative consequences.

Although this approach had a logical basis, it was incomplete in that it ignored the fact that reporting more may well lead to receiving less. This perspective, which is probably obvious to local office staff (who were not consulted until the project was underway), did not enter into plans. Hence, there was a question of the face validity of the intervention from the onset.

Maryland awarded a subcontract to an advertising firm, which competently developed a video and a brochure to convey the message defined by the project staff. The brochure was used as a stand-alone device, and as a reinforcement to the video.

The demonstration was conducted in six local offices in Baltimore City, Montgomery County, and Prince George's County. The implementation proceeded fairly smoothly. However, it was noted that the video became obtrusive in busy waiting rooms as it played over and over before the same clients.

The evaluation design used experimental and control groups at each site. Exposure to the interventions were made at randomly selected times. Although

it was desirable to balance the client mix (e.g., applicants, reapplicants, recertifications), it was not operationally feasible to do so.

Since the intervention targeted income and household composition, the desired outcome measures were errors in grant amounts attributed to those sources. This was expanded to include motor vehicle ownership. Although desirable to conduct QC-like verifications to detect impact on these types of errors, the Maryland budget on data collection was not sufficient to pursue this avenue. Instead, it was decided more practical to look to other existing data in the state (e.g., motor vehicle files, state income tax files, etc.) as verification sources. Without a sophisticated MIS, the Maryland project had no cost efficient way to compute the effect of discrepancies on grants. Hence, outcome measures were limited to differences in verified values among the treatment and control groups.

Although a plausible approach, this plan broke down in implementation. The office conducting the research did not have previous linkages and working relationships with the other state agencies that would have to support the effort. Nor were they very successful in developing them. This became evident in a pilot test of the data gathering procedures, along with another problem. Copies of applications were very slow in coming from the local offices, and once they arrived, data were sparse and sketchy. This was particularly true for recertifications and clients who also received public assistance.

Both of these problem areas resulted in far more elapsed time spent attempting to create a data base. The verification of data was of questionable quality because of problems in matching identifiers, the time lag between verification sources and reported data, and the failure of verification information to address the desired outcome measures. Further, unexpected outcomes occurred--more motor vehicles were reported to the Food Stamp Program than were registered by the state.

Because of the large consumption of time and resources associated with data collection, fewer resources than were planned were available for

analysis. The analyses that were conducted did follow the analysis plan. However, time and budget permitted only a "first cut" of analysis instead of a full investigation of the findings as they emerged. The project report does not take a stand on whether the interventions reduced error. Rather, it states that the findings are inconclusive. Because key information was not included in the report, it is not possible to determine the effect of the demonstration. Maryland did provide an analytic file to FNS so that a more complete analysis could be undertaken.

Despite the weaknesses in the data and the analysis, Maryland did provide two products of quality from the perspective of communications technology. The project report, however, did not indicate whether Maryland planned to continue their use. The video and brochure are available, nevertheless, to other states that perceive errors occur because applicants believe that complete reporting will render them ineligible.

#### NORTH CAROLINA: A COMPUTER-ASSISTED APPLICATION

The rationale for North Carolina's selection of an intervention was that errors occurred because eligibility workers were not consistent and thorough during application intake. North Carolina proposed to improve the quality of interview data by the use of more structured interviewing modalities: A Structured Manual Interview (SMI) and a Computer-Assisted Interview (CAI). These products were developed by the Center for Urban Affairs and Community Studies (CUACS) at the University of North Carolina, under contract to the State of North Carolina.

Using a commercial data base manager, the CAI was developed for use on personal computers. There were inadequacies in the software's capacity for human engineering and user friendliness in this application, however. In this instance, the choice of a prototyping approach to software development proved to be inadequate. In retrospect, it would have been more desirable to use a requirements definition approach, which would have more readily revealed the software capacity. As a consequence, development of the products, particularly of the CAI, was time-consuming and fraught with problems. More

planning at the outset would have been very beneficial. CUACS did a good job, however, of involving state and local staff at all stages of development, and eventually produced a CAI that is at least workable and acceptable to local staff. The SMI, while "workable" in the strict sense of the word, is extremely time consuming and is probably not useful except as a training tool.

The research design associated with this effort had several positive features; it included random assignment of workers (within three counties) to experimental and control conditions, and use of pre-implementation and post-implementation scores. These scores were based on abstracting case files to develop measures of extent of reporting, of completeness of the application form, and of proportion of documented verifications. The choice of these surrogates for case error was made because the early sample sizes needed to detect reductions in case errors far exceeded the project budget and implementation feasibility.

While the development of the interventions was problematic, implementation of the demonstration and the evaluation proceeded fairly smoothly. CUACS staff were effective in gaining cooperation from participating caseworkers in three counties, and developed and conducted a comprehensive training program. They were also effective in gathering the data according to plan, but placed a great deal of emphasis on collecting a variety of work measurement data. These data were mostly discarded in analysis, due to their questionable quality.

North Carolina did succeed in conducting its analysis according to plan. Results were presented as comparisons of ratios and composites on the dimensions of efficiency, effectiveness, and both. These were difficult to interpret in themselves and impossible to interpret relative to reductions in case errors. Nevertheless, it appears that the CAI has a beneficial effect on data quality, at least on the three dimensions that were analyzed, and that this effect is more pronounced for new applicants, as opposed to reapplicants or recertification clients.

CUACS devoted a great amount of effort to studying the amount and distribution of worker time associated with each interview modality. It appears

that CAI interview time is not much greater than traditional interview time, and that the CAI leads to less time being spent on verification activities. Overall, the CAI is quite feasible in terms of the Food Stamp Program requirements, and is available to other states who choose to adopt North Carolina's application requirements.

#### VERMONT: A PERFORMANCE MONITORING SYSTEM

The Vermont demonstration originally intended to reduce agency error and client error through four interventions:

- Supervisory case reviews (SCR)
- Staff training program
- Quality circles (QC)
- Performance objectives.

These interventions were developed through analysis of Vermont's QC data, and as an extension and continuation of previous error reduction efforts. Further, these treatments were viewed as being interrelated, with each serving as a foundation for the next. During the course of the Performance Evaluation and Error Reduction Project (PEER), the training program was designed and partially implemented. However, it was concluded that the training seemed redundant relative to other PEER efforts, and was viewed negatively by the caseworkers. Instead of expending additional resources to perfect the training, PEER management, with FNS concurrence, decided to focus resources on the other interventions. PEER management also chose to exclude performance objectives from the PEER project, but to develop performance objectives as an extension of the SCR at a later date.

The demonstration team developed and implemented a sound research design for the SCR. The Quality Circles did not proceed entirely according to the research design, but they did proceed in accordance with the circle process. That is, the circles did not reach the point of testing and evaluating specific outcomes, but rather continued as a process. In conducting the

project, key state staff worked closely with a subcontractor, Policy Studies, Inc., to carry out the demonstration and the evaluation.

Although the project schedule was delayed, it was largely attributed to re-focusing and reshaping the project design in ways that made the project more useful to the State and improved the quality of the effort. In general, the project was carried out in an effective manner, with treatment planning, development and implementation carried out as planned, and with evaluation data collection and analysis proceeding similarly. This is not to say that the PEER project had no problems. Rather, it is to say that the problems that occurred were handled competently.

The research design for the PEER project was bounded by Vermont's small size and the fact that from a statistical perspective the error rate was low. The state was too small to produce a sample large enough to detect statistically significant reductions in error. Hence, while the SCR treatment was found to reduce errors, the reductions could not be shown to be statistically significant. The Quality Circles proceeded to the point of identifying problems and solutions, but the project ended before the solutions were evaluated. Hence, treatment effects were qualitative, and positive outcomes were discovered through personal interviews.

This project served as a further step in Vermont's effort to reduce errors by focusing on the role of the eligibility worker in controlling errors. As a result of the project, Vermont has not only adopted the SCR, but has also proceeded with performance objectives. The state continued the Quality Circles, but did not reach a final conclusion about expanding them throughout the state. Because the SCR was integrated into Vermont's automated case processing system (ACCESS), the concept rather than the product is directly transportable to other states. It has been sufficiently documented to do so. Documentation of the Quality Circle process was also complete and comprehensive, and is available to other interested states.

## COMPARATIVE ASSESSMENT

Although the three state demonstrations funded by FNS shared the common goal of error reduction they differed in many important ways--in design, in execution and in outcome. This discussion reviews the similarities and differences among the three demonstrations, and relates them to the outcomes.

### Origin and Nature of the Intervention

The three state demonstrations differed at the outset in how the state chose the treatments. In Vermont the treatment was selected as a continuation of building upon what the state had done, and the treatment was integrated into the state's operating systems. The North Carolina project was conceived by the subcontractor and accepted by the state. Unlike the Vermont demonstration which formalized and refined an existing supervisory case review practice, the North Carolina demonstration was the computerization of the application process--the replacement of a key operational step. The Maryland demonstration was conceived by the Welfare research director and did not involve a subcontractor in executing the demonstration or evaluation. Like Vermont's intervention, the Maryland intervention did not replace a key operational step, but extended existing practices by using a more sophisticated media approach to explain eligibility requirements. Overall, it appears that the interventions that created the least turbulence in existing local office operations were easier to implement.

The demonstrations also differed in who they primarily affected. The Vermont demonstration entered the system at the level of local office supervisors. Supervisors were most burdened by the intervention. Their participation affected eligibility workers, and in turn affected clients. The North Carolina's computer aided interviews affected eligibility workers and clients directly. The primary burden of this intervention was placed on the caseworker. In Maryland, the media presentations were placed in waiting rooms and hence affected receptionists and clients. This intervention placed little burden on either, but its repetitiveness in busy offices did make it become obtrusive. In examining the ease of implementation, the intervention that

affected more senior state staff (supervisors) went most smoothly, and those that affected clients and eligibility workers directly were more difficult to implement. This may have occurred because the supervisors are more likely to view responsibility for error reduction as a part of their job than caseworkers or receptionists.

A key aspect of the evaluation design was the specification of outcome measures. The three demonstrations differed in outcome measures because these were linked to the nature of the treatments and the research hypotheses. The supervisory case review was primarily a detection mechanism--it identified an error and sought to correct it. There was a strong and direct link between the treatment and the outcome measure, and in fact the outcome measurement was an aspect of the treatment. Detecting and correcting errors gave supervisors immediate and positive feedback and an immediately evident effect. The outcomes in Maryland and North Carolina were not as proximate to the treatment. In addition, their effect would not be likely to be known to the individuals most directly affected by the treatment. Both the Maryland and North Carolina strategies were designed to prevent errors from occurring, not to correct an existing error. In general, prevention strategies are thought to be highly desirable because they have broader impacts and may achieve greater savings. However, by definition, they are not proximate to impact and hence those most affected by the intervention do not receive positive reinforcement about the effect of the treatment. Another drawback is that it is more difficult to measure these effects. Not being proximate to outcomes, the prevention strategies are more susceptible to other factors making a contribution to an outcome. Hence, prevention strategies require more rigorous research controls. This, in turn, often translates into more complex research designs, larger samples, more control groups, and more difficult measurement and data collection. Both the Maryland and North Carolina analyses of outcomes eventually broke down due to problems involving outcome data weaknesses and/or insufficient samples. Vermont, with a more proximate measure and a built-in data collection system (ACCESS) was better able to achieve its analytic goals.

## Sophistication of State Infrastructure

Vermont can be viewed as a more mature state in its service delivery and management information systems. In the absence of an automated management information system, Maryland had to launch a substantial primary data collection effort. While North Carolina does have automated support, the project's research needs outstripped the system's capacity and North Carolina staff also had to expend substantial effort in data abstraction and collection. Hence, the state's sophistication and maturity also played into the demonstration's success.

## Project Organization

The three demonstrations differed significantly in staffing and organization. The Vermont demonstration was directed by a senior state manager and involved several key staff in developing and implementing the treatments. This organization represented a strong commitment to the project. Vermont was supported by a capable subcontractor that assisted where needed, but had primary responsibility for the evaluation. The North Carolina Project Director was also a senior manager. However, the leadership duties were delegated to a more junior individual hired specifically to provide day-to-day management. The North Carolina project did not evidence high level involvement from top management. Other state staff did not play key roles, and the state's subcontractor had primary responsibility for the project. Problems emerged when the state's day-to-day project manager had to oversee a much more senior subcontract director and mediate between FNS and the subcontractor.

In Maryland, the project was located in the research office and was headed by a mid-level manager. No other regular state staff were assigned to the project. Instead, it was staffed by contract employees. Although the level of leadership in Maryland was adequate, the lack of integration between the research office and the other state offices that was needed to support the project hampered data collection and data quality.

## Implications

This discussion suggests that error reduction demonstration success is linked to the following features:

- A strong involvement, commitment, and leadership by senior staff of the Food Stamp State Agency
- Assignment of key state staff to the demonstration project
- Integrating the intervention into ongoing systems and case processing procedures
- Sophisticated management information capabilities
- Demonstrated linkages and cooperation from other state and local agencies whose participation is required for implementation of the intervention and collection of data for the demonstration evaluation.

This discussion also notes that detection interventions that are integrated into existing systems and affect supervisory office staff are more amenable to successful implementation and evaluation. This is not to say, however, that these types of interventions are most successful at error reduction. The implication is that more effort, more support, more time and a larger budget is probably necessary to carry out a prevention mechanism successfully. This suggests that in considering future demonstrations, FNS pursue one of two avenues:

- Select proposals that show promise of implementation success; or
- Be prepared to provide the resources necessary to take a good raw idea and work it into a quality design and implementation.

Volume III discusses how FNS can structure the demonstrations to assure this success.